



ATK Armament Systems
Energetic Systems
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www.atk.com

October 19, 2011

Mr. Frank Adams
Department of Environmental Quality
West Central Regional Office
3019 Peters Creek Road
Roanoke, Virginia 24019

Subject: Warning Letter Dated September 30, 2011

Dear Mr. Adams

This is in response to the Warning Letter dated September 30, 2011 issued to the Radford Army Ammunition Plant (RFAAP) addressing incidents of excess opacity reported in the facility's Semi-annual Monitoring Report for the first half of calendar year 2011. Below is a list of actions taken by RFAAP in response to your concerns.

Soot Blowing – As you are aware, blowing soot is necessary to prevent build-up in the boilers and maintain efficient air flow. As such, it is a required practice for all coal fired boilers. Soot blowing has been conducted on our boilers twice in a 24 hour period. In an effort to reduce the amount of soot which is released at any one time, we are testing different soot blowing frequencies. We're currently blowing soot three times in a 24 hour period. This was attempted once before with inconclusive results, so the electrostatic precipitator data will also be tracked to verify soot blowing incidents and to allow comparison to opacity spikes. We are also standardizing the boiler set-up for sootblowing through standard work based on operator best practices.

Efficiency of Electrostatic Precipitators (ESP) – Each boiler uses ESPs to remove particulate matter from the exhaust gases. In order to ensure that the ESPs are consistently operating at their peak efficiency without any unnecessary re-entrainment of particulate, we have developed a plan to monitor the vacuum on the ash collection system to ensure that the collected particulates are being removed from the hoppers efficiently and to quickly identify any bridging or high ash levels in the hoppers.

Steam demand surges – We have routinely added fuel oil to be able to manage load swings on the coal fired boilers. However, sudden changes in load can still result in excess opacity. Therefore, we have established a system to ensure that the powerhouse is notified before major steam consumption units are brought on line in the event that the opacity is above approximately 14%. By notifying Powerhouse personnel before equipment is brought on line, we believe that the Powerhouse can make some initial adjustments to minimize the impact as the units are brought on

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line. This also gives the powerhouse operators the ability to postpone bringing units on line until the load and/or opacity are more manageable. As a precaution, we are also examining the condition of our oil gun nozzles and verifying that the air pressures meet the required level for effective atomization of the oil.

Equipment Failures – Occasionally, equipment failures result in an excess opacity, also. While ATK conducts preventive maintenance checks, operational checklists, and routine maintenance, we will also continue additional activities which are designed to reduce failure frequency. Predictive maintenance practices of vibration monitoring and laser alignment were established in 2009 for key equipment. We anticipate continuing these practices. We are also doing additional research to identify industry best practices to identify more ways to improve equipment reliability.

As stated previously, over the past three years, we have made substantial improvements in meeting the visible emission limits at RFAAP's coal-fired powerhouse, and we are continuing to look for opportunities to improve further. We are looking specifically at improving our ash handling and response to steam load changes to minimize any excess visible emissions.

Please feel free to call Allen Ramsey (540-639-8513) if you have any questions or need additional information.

Very truly yours, /

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Alliant Techsystems Inc.

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